Semstone 145 SL

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Epoxy novolac
Description	High performance, 100% solids, novolac epoxy coating designed for concrete protection against chemical attack and physical abuse. This coating has been specially formulated with vertical film build characteristics for application to walls (and floors alike) to provide an outstanding barrier against some of industry's most aggressive chemicals, including 98% sulfuric acid as well as many organic chemicals and solvents.
Features	• Excellent resistance to chemical attack • Excellent abrasion and impact resistance • Exceptional thermal shock resistance • Superior adhesion to both steel or concrete • High cohesive strength • Low permeability • Low odor
Primer	Semstone 110 Primer **Note:** For substrates with out-gassing concerns use Carboguard 1340. Primer should be applied while the substrate temperature is decreasing.
Dry Film Thickness	762 microns (30 mils) per coat
Typical Uses	• Process areas • Tank farm containment areas • Production areas • Spill containment Areas • Light Manufacturing
Solids Content	By Volume 100% +/- 0%
Theoretical Coverage Rate	39.2 m²/l at 25 microns (1598 ft²/gal at 1.0 mils) 1.3 m²/l at 750 microns (53 ft²/gal at 30.0 mils) Allow for loss in mixing and application.
VOC Values	**As Supplied** : 3 g/l

SUBSTRATES & SURFACE PREPARATION

General	Proper preparation is critical to ensure an adequate bond. The substrate must be dry and free of all wax, grease, oils, fats, soil, loose or foreign materials and laitance. Laitance and unbonded cement particles must be removed by mechanical methods, i.e., abrasive blasting or scarifying. Other contaminants may be removed by scrubbing with a heavy-duty industrial detergent and rinsing with clean water. For recommendations or additional information regarding substrate preparation, please contact Carboline's Technical Service Department.
Steel	Equipment base plates, etc. to be coated along with the concrete should be abrasive blasted to a near white metal finish (SSPC-10 or NACE-2) with a 1 to 2 mils anchor profile.
Concrete or CMU	Concrete should be properly cured for 28 days and have the following characteristics: Substrate tensile strength of at least 300 psi. pH in the range of 7 to 11. The surface must show open porosity throughout and have a profile similar to medium sandpaper texture. Refer to SSPC-SP13 / NACE 6.

MIXING & THINNING

Mixing	Premix Part A until homogenous using a Jiffy-type mixer. Pour part B into part A and mix thoroughly for two minutes. **Mix as supplied; do not mix partial kits.**
Ratio	4:1 A:B
Pot Life	45-60 minutes at 75°F* *Significantly less at elevated temperatures

APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

Airless Spray	Use air motor with an air ratio of 42:1 or larger. All filters should be removed from the pump. Use a 3/8 in. spray hose from pump to gun, not to exceed 100 linear ft. It is best to bring the material directly to the gun body and not go through a tube in the handle. The size of airless spray tip should be from 0.019-0.035 inches. The mixed material temperature should be 75-85°F/24-38°C for best spraying properties. Temperatures above 85°F (29°C) will shorten pot life.
Plural Component Airless Spray	Use a fixed (4:1) ratio plural component spray rig with heated hoppers, heated hoses to a mixer manifold through a static mixer to a 50 ft whip hose and self-cleaning reversible tips from 0.017" to 0.035". The Part A material should be a minimum of 110°F (43°C) and the Part B should be 90-100°F (32-38°C). Take care to prevent mixed material from setting up in your hoses. For best results keep hoses as short as possible, purge them immediately with Carboline Thinner #76 if work is interrupted, keep them out of direct sunlight and insulated from hot surfaces.

CURING SCHEDULE

Surface Temp.	Dry to Touch	Firm	Chemical Service
24°C (75°F)	12 Hours	24 Hours	36 Hours

* with 50% relative humidity

CLEANUP & SAFETY

Cleanup	MEK, Toluene or Xylene solvents are recommended for clean up of Semstone 145 SL material spills. Use these materials only in strict accordance with the manufacturer's recommended safety procedures. Dispose of waste materials in accordance with government regulations.
Safety	The selection of proper protective clothing and equipment will significantly reduce risk to injury. Body covering apparel, safety goggles and impermeable gloves are highly recommended.
Ventilation	• The use of a NIOSH/MSHA approved respirator using a #TC-23C-738 organic vapor or a #TC-23C-740 organic vapor acid gas cartridge is mandatory. • Use only with adequate ventilation.

PACKAGING, HANDLING & STORAGE

Shelf Life	1 year in the original, unopened container.

PACKAGING, HANDLING & STORAGE

Shipping Weight (Approximate)	1 gal unit: 11.8 lbs (5.4 kg) 5 gal unit: 55.9 lbs (25.4 kg)
Storage Temperature & Humidity	50-75°F (10-24°C) 24 hours before application, all materials (components A and B, aggregate, etc.) should be stored at a 70-85°F/21-29°C to facilitate handling.
Flash Point (Pensky Martens Closed Cup)	Part A: 170°F (77°C) Part B: 199°F (93°C)
Storage	Store indoors

APPLICATION PROCEDURES

General	Before any touch up or recoat material can be applied the first coat must be properly prepared for intercoat adhesion. The first coat must be cured firm to touch. Coating on floors must be able to support foot traffic. Scrub the first coat with soap and water and thoroughly rinse and dry. If the first coat cures more than 24 hours, sand or mechanically abrade the surface after scrubbing it down. Any surface to be touched up or recoated should be protected. When the recoat material is applied the surface must be dry and free of all dirt, dust, debris, oil, grease or other contamination.
Airless Spray	Immediately before applying spray coat, stripe all continuous welds and edges with a brush coat to assure adequate protection of these areas. Apply material to specified thickness using 8-14 mil (200-350 microns) per pass. Apply in a criss-cross, multi-pass technique, moving gun at a fairly rapid rate and maintaining a wet-appearing film. Use a wet film gauge to monitor film build.

WARRANTY

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